

REMARKS/ARGUMENTSELECTION/RESTRICTION

Newly submitted claims 43-45, 48-50, 55-63, and 69 have been withdrawn from consideration as being directed to a non-elected invention. The Examiner opines that these claims are directed toward a method for forming laminates involving operations independent and/or distinct from the methods for mixing and releasing reactants originally presented.

Reconsideration is respectfully requested. The step of depositing the developing foam on a laminator, or doing so continuously, such as set forth in claims 43 and 44, are further steps to the process defined in the independent claims such as independent claim 1. In other words, claim 1 includes a step of contacting, and dependent claim 43 adds a further step of depositing.

There is no basis in the MPEP (or the law for that matter) that additional process steps further defining and limiting an invention can form the basis of a Restriction Requirement. Indeed, the situation is no different than an invention comprising elements a and b that is further limited by the addition of element c.

CLAIM REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH

Claims 1, and 30-40, 42, 46, 47, 51-54, and 64-68 have been rejected under 35 U.S.C. §112, second paragraph. The Examiner maintains that other criteria such as pressure and temperature need to be identified by the claims. The fact that these conditions have been added to the claims has not—according to the Examiner—remedied the claims because the conditions of release, such as ambient conditions, are not accounted for and/or identified by the claims nor are the problems associated with the impact of other blowing gases accounted for by the language of the claims.

Reconsideration is respectfully requested. Each of the independent claims (*i.e.*, claims 1, 34, 39, 56, and 64) have been amended to recite that the volumetric increase defined in the claims occurs as the foam instantaneously leaves the mix head under pressure. This is adequately defined at page 9, lines 11-23 of the written description. There should be little

question that one of skill in the art will completely understand the metes and bounds of Applicants' invention based upon the claim language when viewed in conjunction with the written description. As for problems associated with the impact of other blowing gases, Applicants maintain that one of skill in the art will be able to practice the claimed invention and fully understand the metes and bounds of the claimed invention without reliance on any purported problems associated with the impact of other blowing gases. Indeed, other blowing gases have been used in the prior art for many years and are in fact used in the claimed process of the present invention. The presence of these other blowing gases, however, will not hinder the ability of one skilled in the art to add nitrogen to achieve frothing.

CLAIM REJECTIONS UNDER 35 U.S.C. §112, FIRST PARAGRAPH

Claims 39, 52-54, and 64-8 have been rejected under 35 U.S.C. § 112, first paragraph. The Examiner has found that the ranges of temperatures recited in the claims as they currently stand refer to the temperature of the B-side prior to mixing with the A-side.

The rejected claims have been amended in a manner consistent with page 11, lines 23-31 and page 12, lines 1-3. That is, the claims now recite a temperature of about 29 °C (85 °F) to about 35 °C (95 °F) and a pressure of about 1800 to about 2400 psi.

Claim 64 has been rejected under 35 U.S.C. § 112, first paragraph. The Examiner asserts that the term "inert gas" without "low boiling" and "having a boiling point of less than 20 °C" is new matter. Claim 64 has been amended by including recitation from claim 65.

Claim 64 has been rejected under 35 U.S.C. § 112, second paragraph. The Examiner contends that the term "inert" is a relative term that renders the claims indefinite.

Applicants maintain that the term is not indefinite. In fact, page 7, line 33 defines that the gases are inert with respect to polyisocyanurate reagents. As those skilled in the art understand, the term inert refers to chemical inactivity. Thus, the inert gases demonstrate chemical inactivity with respect to the polyisocyanurate reagents. Claim 64 has been amended in an attempt to clarify any ambiguity.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

Claims 1, 30, 31, 34-36, 46, and 51-54 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Raynor, et al. (U.S. Patent No. 3,882,052). In response to the Applicants' arguments, the Examiner maintains that the ranges of amount values defined by the claims are inherent to the teachings of Raynor. Also, the Examiner maintains that while Raynor desires no substantial pre-expansion, it does not fully exclude some pre-expansion.

Reconsideration is respectfully requested. Applicants maintain that inherency cannot be established by probabilities or possibilities. Thus, if for the sake of argument, the amounts provided in Raynor could achieve frothing, the same does not inherently anticipate the claimed invention because this is only a mere possibility. The mere fact that a certain thing may result from a given set of circumstances is not sufficient to support the rejection. See *In re Robertson*, 49 USPQ 2d 1949 (Fed. Cir. 1999). Moreover, the fact that Raynor teaches against frothing undermines the broad range of materials taught by Raynor.

The same holds true with respect to pre-expansion of the foam taught by Raynor. Applicants have specifically quantified a degree of volumetric expansion. Indeed, the defined expansion is at least a 25% expansion. Raynor is silent on the degree of expansion. Raynor does not enable one skilled in the art to achieve expansion. And, Raynor teaches against expansion. Thus, Raynor cannot anticipate the claimed invention even if, for the sake of argument, one of skill in the art could glean from Raynor the existence of some pre-expansion.

Claims 34 and 51 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Wishneski, et al. (U.S. Patent No. 5,264,464). In the face of the Applicants' previous arguments, the Examiner maintains that the ranges of amount values defined by the claims are inherent to the teachings of Wishneski.

For the reasons stated above with respect to Raynor, reconsideration is respectfully requested. Again, Applicants maintain that it is mere speculation and only a possibility or probability that the teachings of Wishneski could lead to a composition that achieves frothing.

Wishneski can be further distinguished from the claimed invention based on the Examiner's findings reported on page 10 of the Office Action. Here, the Examiner has held

“that it is clear from Wishneski et al. (See abstract, column 1 lines 25-42) that it is the need for an auxiliary CFC foaming agent is the result which is being avoided. Wishneski et al. is clear in its employment of frothing agents and formation of frothed foams (column 1 line 37-55 and column 8 line 36).”

The improvement taught by Wishneski is “the improvement employing monochlorodifluoromethane as the sole blowing/frothing agent.” See column 1, lines 52-55. The claimed invention employs multiple blowing agents (both nitrogen and hydrocarbon) and in specific embodiments does not employ monochlorodifluoromethane. Moreover, to the extent that Wishneski may teach frothing, Wishneski does not teach frothing by the addition of nitrogen. In fact, if Wishneski teaches that monochlorodifluoromethane can achieve frothing, then clearly the use of nitrogen as taught at column 9, which those skilled in the art would understand is solely used as a propellant for moving the materials, is not being employed to froth the developing foam.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The Examiner has rejected claims 32, 33, 37-40, 42, 47, and 64-68 under 35 U.S.C. § 103(a) as being unpatentable over Raynor as applied above and further in view of Volkert (U.S. Patent No. 5,278,195). The Examiner opines that Raynor differs from the claims and that higher pressures are not specifically required by Raynor, but Raynor identifies the use of elevated pressures in practice of its mixing operations for purposes of preventing backflow of materials. The Examiner therefore concludes that it would have been obvious to practice Raynor at higher pressures for purposes of maximizing backflow reducing affects.

Reconsideration is respectfully requested. While elevated pressures may be used to reduce back flow, those skilled in the art would not employ pressures in excess of 1800 psi in order to prevent or even maximize the prevention of back flow. There is no evidence to the contrary.

The Examiner also opines that Raynor does not require alkane blowing agents, but nonetheless believes it would have been obvious to employ alkanes disclosed by Volkert within the teachings of Raynor.

Reconsideration is respectfully requested. The Applicants maintain that even if Raynor and Volkert were combined, the same would not give rise to the claimed invention. Indeed, neither reference teaches or contemplates frothing.

Claims 1 and 46 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wishneski, et al. as applied above and further in view of Raynor and Volkert. According to the Examiner, Wishneski differs from the claims in that it does not require its nucleating gas to be air. The Examiner further opines that Raynor discloses air and nitrogen to be suitable nucleating gases. The Examiner therefore concludes it would have been obvious for one of ordinary skill in the art to have employed air disclosed by Raynor as a nucleating gas in practicing Wishneski.

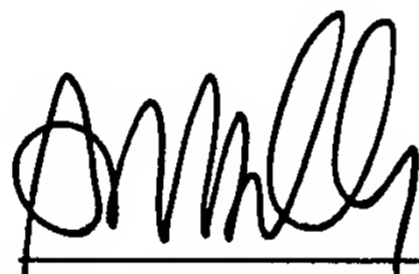
Reconsideration is respectfully requested. At issue is not whether nitrogen and air are equivalents or can be substituted for one another. The issue is whether Raynor, Wishneski, or any other reference of record, teaches frothing. They do not. Instead, the references employ inert gases as nucleating agents. The record is clear on the point that inert gases can be added to foam forming processes for various purposes. In fact, Wishneski at column 7 makes this point. Namely, gases can be used as propellants and they can be used as nucleating agents. It should also be clear that inert gases—as the Applicants have discovered—can be used to froth the foam. There should be little question that the claimed invention employs enough inert gas to achieve frothing, which Applicants maintain and one of skill in the art will understand is beyond that amount that might be used for nucleation or that might be used for a propellant and, therefore, beyond any amount taught by any reference of record. Any reliance on Volkert to overcome the teachings of Wishneski likewise fails. In a similar manner as above, Applicants maintain that the combination of Wishneski and Volkert will not arrive at the claimed invention. Indeed, neither reference teaches or contemplates frothing.

CONCLUSION

In view of the foregoing, Applicant maintains that the claimed invention is patentable over the prior art of record, either alone or in combination. Applicant earnestly solicits and requests a proper consideration of all evidence of record. It is respectfully requested that all pending claims are in condition for allowance. Accordingly, Applicants request early and favorable reconsideration in the form of a Notice of Allowance.

If necessary to affect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to affect a timely response. The undersigned attorney hereby authorizes the Commissioner to charge payment of any fees associated with this communication or to credit any overpayment to Deposit Account No. 06-0925.

Respectfully submitted,



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